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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,922	02/14/2001	Kari Einamo	PM 277084	1058
909	7590	09/11/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			CHO, UN C	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2617	

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/762,922

Applicant(s)

EINAMO, KARI

Examiner

Un C. Cho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 4, 7, 8, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Criss et al. (US 2006/0002340 A1).

Regarding claim 1, Criss discloses a method of tracing signaling messages of a subscriber in a mobile communication system, which comprises functional entities for subscriber mobility management, the method comprising: transmitting and receiving signaling messages in a functional entity (a host computer (Fig. 1, 30) connected to a base station (Fig. 1, 26) receives and transmits messages from and to a mobile station (Fig. 1, 36), Criss, Page 3, Paragraph 0040, line 9 through Page 4, Paragraph 0042, line 8), receiving a trace command in said functional entity, the command indicating the tracer and identifying at least one subscriber whose signaling messages are to be traced (the host computer identifies the particular mobile station to be traced to check whether it has the most up-to-date version of operating software, Criss, Page 4, Paragraph 0044, lines 1 – 32 and Page 7, Paragraph 0063, line 1 through

Paragraph 0063, line 4), starting tracing which comprises sending to the tracer a copy of a signaling message in response to the reception or transmission of a signaling message related to the subscriber to be traced (the host computer has a bootptab table where it stores all outgoing and incoming messages that are sent to and received from a mobile station), wherein the copy of the signaling message sent to the tracer is identical to the signaling message of the subscriber (message stored within the bootptab is identical to the message of the subscriber, Page 5, Paragraph 0054, line 1 through Page 6, Paragraph 0055, line 20).

Regarding claim 2, Criss discloses wherein the trace command also indicates the type of the signaling message to be traced (determining the version of the operating software of a particular mobile station), and the copy of the signaling message is sent only if the signaling message is of the type to be traced (host computer's bootptab table only stores this particular information) (Criss, Page 5, Paragraph 0054, line 1 through Page 6, Paragraph 0055, line 20).

Regarding claim 3, Criss discloses wherein tracing starts from the start message of a dialogue related to the subscriber to be traced (the host computer receives the Bootp Request Packet and then it identifies the particular mobile station to be traced to check whether it has the most up-to-date version of operating software, Criss, Page 4, Paragraph 0044, lines 1 – 32 and Page 7, Paragraph 0063, line 1 through Paragraph 0063, line 4).

Regarding claim 4, Criss discloses wherein tracing of the subscriber's signaling message stops in response to the fact that the dialogue which started tracing ends (it would have been obvious to one of ordinary skill in the art that if there is no need for an update to the most current version of operating software or if there is a need for an update the mobile station it will or will not be updated accordingly and then the process will end, Criss, Page 4, Paragraph 0044, lines 1 – 32 and Page 7, Paragraph 0063, line 1 through Paragraph 0063, line 4).

Regarding claims 7 and 10, the claims are interpreted and rejected for the same reason as set forth in claim 1.

Regarding claims 8 and 11, the claims are interpreted and rejected for the same reason as set forth in claim 2.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Criss in view of Sanmugam (US 5,734,977).

Regarding claim 5, Criss as applied above does not specifically disclose receiving a stop command of tracing in the entity, the command indicating the subscriber whose signaling message tracing is to be stopped, and stopping

tracing of the signaling messages related to said subscriber. In an analogous art, Sanmugam discloses receiving a stop command of tracing in the entity, the command indicating the subscriber whose signaling message tracing is to be stopped, and stopping tracing of the signaling messages related to said subscriber (Sanmugam, Col. 25, lines 63 – 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Sanmugam to the system of Criss in order to provide an efficient way of allocating network resources as needed by the operator.

5. Claims 6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Criss in view of Clarke et al. (US 5,793,752).

Regarding claim 6, Criss as applied above does not specifically disclose wherein the signaling messages of the MAP protocol are traced. In an analogous art, Clarke discloses wherein the signaling messages of the MAP protocol are traced (Clarke, Col. 5, line 25 through Col. 6, line 15 and Col. 11, lines 23 – 29). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Clarke to the system of Criss in order to provide a monitoring system that can provide an accurate feedback to the user just by recognizing a predetermined set of message characteristics, which is sufficient to identify a type of node functionality, and associating the type of functionality identified by said set of characteristics with said particular node.

Regarding claim 9, Criss in view of Clarke as applied above discloses wherein the signaling messages to be traced are message of the MAP protocol (Clarke, Col. 5, line 25 through Col. 6, line 15 and Col. 11, lines 23 – 29), and the network element is arranged to start sending copies of the signaling messages related to the subscriber in response to the dialogue of the MAP protocol which starts after the trace command and is related to the subscriber to be traced (monitoring probes send feedback to the central station, Clarke, Col. 9, lines 9 – 25).

Regarding claim 12, the claim is interpreted and rejected for the same reason as set forth in claim 9.

### ***Response to Arguments***

6. Applicant's arguments filed 6/14/2006 have been fully considered but they are not persuasive.

Regarding claim 1, the applicant presented the argument that the reference provided by the examiner fails to teach "transmitting and receiving signaling messages", "sending to the tracer a copy of a signaling message ... wherein the copy of the signaling message sent to the tracer is identical to the signaling message of the subscriber". The examiner respectfully disagrees with the arguments presented by the applicant. First, the examiner would like to clarify the terminologies that are used in the claim language to the applicant's specification. According to applicant's specification the 'signaling message' is a

message which comprises at least the information required for identifying the subscriber, such as the IMSI or MSISDN (Page 7, line 31 through Page 8, line 18) and the term 'tracer' refers to the network address or memory address to which copied signaling messages are sent or in which they are stored (Page 2, lines 12 – 14 and Page 8, lines 9 – 18).

The reference by Criss clearly discloses such limitations whereas transmitting and receiving signaling messages in a functional entity (a host computer (Fig. 1, 30) connected to a base station (Fig. 1, 26) receives and transmits messages from and to a mobile station (Fig. 1, 36), Criss, Page 3, Paragraph 0040, line 9 through Page 4, Paragraph 0042, line 8), receiving a trace command in said functional entity, the command indicating the tracer and identifying at least one subscriber whose signaling messages are to be traced (the host computer identifies the particular mobile station to be traced and to check whether it has the most up-to-date version of operating software, Criss, Page 4, Paragraph 0044, lines 1 – 32 and Page 7, Paragraph 0063, line 1 through Paragraph 0063, line 4), starting tracing which comprises sending to the tracer a copy of a signaling message in response to the reception or transmission of a signaling message related to the subscriber to be traced (the host computer has a bootptab table, where it stores all outgoing and incoming messages that are sent to and received from a mobile station), wherein the copy of the signaling message sent to the tracer is identical to the signaling message of the subscriber (the bootptab table located within the memory of the host computer includes an



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entry for each mobile terminal whereas the message stored within the bootptab table is identical to the message of the subscriber, Page 5, Paragraph 0054, line 1 through Page 6, Paragraph 0055, line 20). Therefore, the office action mailed on 1/26/2006 stands.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C. Cho whose telephone number is (571) 272-7919. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner  
Art Unit 2617

9/1/06 oe



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SUPERVISORY PATENT EXAMINER